SEQUENCE LISTING

<110> JENAPHARM GmbH & Co. KG

<120> Methods for Determining Hormonal Effects of Substances

<130> Pat 3684/11

<140> US/10/791,017
<141> 2004-03-02

<160> 7

<170> PatentIn Ver. 2.1

<210> 1
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<212> DNA
<213> Homo sapiens

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<221> CDS
<222> (44)..(2011)
<223> EWS

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Asp Tyr Ser Thr Tyr Ser Gln Ala Ala Ala Gln Gln Gly Tyr Ser Ala
  5                  10                  15                  20

tac acc gcc cag ccc act caa gga tat gca cag acc acc cag gca tat   151
Tyr Thr Ala Gln Pro Thr Gln Gly Tyr Ala Gln Thr Thr Gln Ala Tyr
                 25                  30                  35

ggg caa caa agc tat gga acc tat gga cag ccc act gat gtc agc tat   199
Gly Gln Gln Ser Tyr Gly Thr Tyr Gly Gln Pro Thr Asp Val Ser Tyr
             40                  45                  50

acc cag gct cag acc act gca acc tat ggg cag acc gcc tat gca act   247
Thr Gln Ala Gln Thr Thr Ala Thr Tyr Gly Gln Thr Ala Tyr Ala Thr
         55                  60                  65

tct tat gga cag cct ccc act ggt tat act act cca act gcc ccc cag   295
Ser Tyr Gly Gln Pro Pro Thr Gly Tyr Thr Thr Pro Thr Ala Pro Gln
     70                  75                  80

gca tac agc cag cct gtc cag ggg tat ggc act ggt gct tat gat acc   343
Ala Tyr Ser Gln Pro Val Gln Gly Tyr Gly Thr Gly Ala Tyr Asp Thr
 85                  90                  95                  100

acc act gct aca gtc acc acc acc cag gcc tcc tat gca gct cag tct   391
Thr Thr Ala Thr Val Thr Thr Thr Gln Ala Ser Tyr Ala Ala Gln Ser
                105                 110                 115

gca tat ggc act cag cct gct tat cca gcc tat ggg cag cag cca gca   439
Ala Tyr Gly Thr Gln Pro Ala Tyr Pro Ala Tyr Gly Gln Gln Pro Ala
            120                 125                 130
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gcc act gca cct aca aga ccg cag gat gga aac aag ccc act gag act   487
Ala Thr Ala Pro Thr Arg Pro Gln Asp Gly Asn Lys Pro Thr Glu Thr
        135                 140                 145

agt caa cct caa tct agc aca ggg ggt tac aac cag ccc agc cta gga   535
Ser Gln Pro Gln Ser Ser Thr Gly Gly Tyr Asn Gln Pro Ser Leu Gly
    150                 155                 160


tat gga cag agt aac tac agt tat ccc cag gta cct ggg agc tac ccc   583
Tyr Gly Gln Ser Asn Tyr Ser Tyr Pro Gln Val Pro Gly Ser Tyr Pro
165                 170                 175                 180

atg cag cca gtc act gca cct cca tcc tac cct cct acc agc tat tcc   631
Met Gln Pro Val Thr Ala Pro Pro Ser Tyr Pro Pro Thr Ser Tyr Ser
                185                 190                 195

tct aca cag ccg act agt tat gat cag agc agt tac tct cag cag aac   679
Ser Thr Gln Pro Thr Ser Tyr Asp Gln Ser Ser Tyr Ser Gln Gln Asn
            200                 205                 210

acc tat ggg caa ccg agc agc tat gga cag cag agt agc tat ggt caa   727
Thr Tyr Gly Gln Pro Ser Ser Tyr Gly Gln Gln Ser Ser Tyr Gly Gln
        215                 220                 225

caa agc agc tat ggg cag cag cct ccc act agt tac cca ccc caa act   775
Gln Ser Ser Tyr Gly Gln Gln Pro Pro Thr Ser Tyr Pro Pro Gln Thr
    230                 235                 240

gga tcc tac agc caa gct cca agt caa tat agc caa cag agc agc agc   823
Gly Ser Tyr Ser Gln Ala Pro Ser Gln Tyr Ser Gln Gln Ser Ser Ser
245                 250                 255                 260

tac ggg cag cag agt tca ttc cga cag gac cac ccc agt agc atg ggt   871
Tyr Gly Gln Gln Ser Ser Phe Arg Gln Asp His Pro Ser Ser Met Gly
                265                 270                 275

gtt tat ggg cag gag tct gga gga ttt tcc gga cca gga gag aac cgg   919
Val Tyr Gly Gln Glu Ser Gly Gly Phe Ser Gly Pro Gly Glu Asn Arg
            280                 285                 290

agc atg agt ggc cct gat aac cgg ggc agg gga aga ggg gga ttt gat   967
Ser Met Ser Gly Pro Asp Asn Arg Gly Arg Gly Arg Gly Gly Phe Asp
        295                 300                 305

cgt gga ggc atg agc aga ggt ggg cgg gga gga gga cgc ggt gga atg   1015
Arg Gly Gly Met Ser Arg Gly Gly Arg Gly Gly Gly Arg Gly Gly Met
    310                 315                 320

ggc agc gct gga gag cga ggt ggc ttc aat aag cct ggt gga ccc atg   1063
Gly Ser Ala Gly Glu Arg Gly Gly Phe Asn Lys Pro Gly Gly Pro Met
325                 330                 335                 340

gat gaa gga cca gat ctt gat cta ggc cca cct gta gat cca gat gaa   1111
Asp Glu Gly Pro Asp Leu Asp Leu Gly Pro Pro Val Asp Pro Asp Glu
                345                 350                 355

gac tct gac aac agt gca att tat gta caa gga tta aat gac agt gtg   1159
Asp Ser Asp Asn Ser Ala Ile Tyr Val Gln Gly Leu Asn Asp Ser Val
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act cta gat gat ctg gca gac ttc ttt aag cag tgt ggg gtt gtt aag   1207
Thr Leu Asp Asp Leu Ala Asp Phe Phe Lys Gln Cys Gly Val Val Lys
        375                 380                 385

atg aac aag aga act ggg caa ccc atg atc cac atc tac ctg gac aag   1255
Met Asn Lys Arg Thr Gly Gln Pro Met Ile His Ile Tyr Leu Asp Lys
    390                 395                 400

gaa aca gga aag ccc aaa ggc gat gcc aca gtg tcc tat gaa gac cca   1303
Glu Thr Gly Lys Pro Lys Gly Asp Ala Thr Val Ser Tyr Glu Asp Pro
405                 410                 415                 420

ccc act gcc aag gct gcc gtg gaa tgg ttt gat ggg aaa gat ttt caa   1351
Pro Thr Ala Lys Ala Ala Val Glu Trp Phe Asp Gly Lys Asp Phe Gln
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ggg agc aaa ctt aaa gtc tcc ctt gct cgg aag aag cct cca atg aac   1399
Gly Ser Lys Leu Lys Val Ser Leu Ala Arg Lys Lys Pro Pro Met Asn
            440                 445                 450

agt atg cgg ggt ggt ctg cca ccc cgt gag ggc aga ggc atg cca cca   1447
Ser Met Arg Gly Gly Leu Pro Pro Arg Glu Gly Arg Gly Met Pro Pro
        455                 460                 465

cca ctc cgt gga ggt cca gga ggc cca gga ggt cct ggg gga ccc atg   1495
Pro Leu Arg Gly Gly Pro Gly Gly Pro Gly Gly Pro Gly Gly Pro Met
    470                 475                 480

ggt cgc atg gga ggc cgt gga gga gat aga gga ggc ttc cct cca aga   1543
Gly Arg Met Gly Gly Arg Gly Gly Asp Arg Gly Gly Phe Pro Pro Arg
485                 490                 495                 500

gga ccc cgg ggt tcc cga ggg aac ccc tct gga gga gga aac gtc cag   1591
Gly Pro Arg Gly Ser Arg Gly Asn Pro Ser Gly Gly Gly Asn Val Gln
                505                 510                 515

cac cga gct gga gac tgg cag tgt ccc aat ccg ggt tgt gga aac cag   1639
His Arg Ala Gly Asp Trp Gln Cys Pro Asn Pro Gly Cys Gly Asn Gln
            520                 525                 530

aac ttc gcc tgg aga aca gag tgc aac cag tgt aag gcc cca aag cct   1687
Asn Phe Ala Trp Arg Thr Glu Cys Asn Gln Cys Lys Ala Pro Lys Pro
        535                 540                 545

gaa ggc ttc ctc ccg cca ccc ttt ccg ccc ccg ggt ggt gat cgt ggc   1735
Glu Gly Phe Leu Pro Pro Pro Phe Pro Pro Pro Gly Gly Asp Arg Gly
    550                 555                 560

aga ggt ggc cct ggt ggc atg cgg gga gga aga ggt ggc ctc atg gat   1783
Arg Gly Gly Pro Gly Gly Met Arg Gly Gly Arg Gly Gly Leu Met Asp
565                 570                 575                 580

cgt ggt ggt ccc ggt gga atg ttc aga ggt ggc cgt ggt gga gac aga   1831
Arg Gly Gly Pro Gly Gly Met Phe Arg Gly Gly Arg Gly Gly Asp Arg
                585                 590                 595

ggt ggc ttc cgt ggt ggc cgg ggc atg gac cga ggt ggc ttt ggt gga   1879
Gly Gly Phe Arg Gly Gly Arg Gly Met Asp Arg Gly Gly Phe Gly Gly
            600                 605                 610

gga aga cga ggt ggc cct ggg ggg ccc cct gga cct ttg atg gaa cag   1927
Gly Arg Arg Gly Gly Pro Gly Gly Pro Pro Gly Pro Leu Met Glu Gln
        615                 620                 625
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atg gga gga aga aga gga gga cgt gga gga cct gga aaa atg gat aaa   1975
Met Gly Gly Arg Arg Gly Gly Arg Gly Gly Pro Gly Lys Met Asp Lys
    630                 635                 640

ggc gag cac cgt cag gag cgc aga gat cgg ccc tac tagatgcaga       2021
Gly Glu His Arg Gln Glu Arg Arg Asp Arg Pro Tyr
645                 650                 655

gaccccgcag agctgcattg actaccagat ttatttttta aaccagaaaa tgttttaaat 2081

ttataattcc atatttataa tgttggccac aacattatga ttattccttg tctgtacttt 2141

agtatttttc accatttgtg aagaaacatt aaaacaagtt aaatggtagt gtgcggagtt 2201

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        35                  40                  45

Asp Val Ser Tyr Thr Gln Ala Gln Thr Thr Ala Thr Tyr Gly Gln Thr
    50                  55                  60

Ala Tyr Ala Thr Ser Tyr Gly Gln Pro Pro Thr Gly Tyr Thr Thr Pro
65                  70                  75                  80

Thr Ala Pro Gln Ala Tyr Ser Gln Pro Val Gln Gly Tyr Gly Thr Gly
                85                  90                  95

Ala Tyr Asp Thr Thr Thr Ala Thr Val Thr Thr Thr Gln Ala Ser Tyr
            100                 105                 110

Ala Ala Gln Ser Ala Tyr Gly Thr Gln Pro Ala Tyr Pro Ala Tyr Gly
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Gln Gln Pro Ala Ala Thr Ala Pro Thr Arg Pro Gln Asp Gly Asn Lys
    130                 135                 140

Pro Thr Glu Thr Ser Gln Pro Gln Ser Ser Thr Gly Gly Tyr Asn Gln
145                 150                 155                 160

Pro Ser Leu Gly Tyr Gly Gln Ser Asn Tyr Ser Tyr Pro Gln Val Pro
                165                 170                 175

Gly Ser Tyr Pro Met Gln Pro Val Thr Ala Pro Pro Ser Tyr Pro Pro
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Thr Ser Tyr Ser Ser Thr Gln Pro Thr Ser Tyr Asp Gln Ser Ser Tyr
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Ser Gln Gln Asn Thr Tyr Gly Gln Pro Ser Ser Tyr Gly Gln Gln Ser
210 215 220

Ser Tyr Gly Gln Gln Ser Ser Tyr Gly Gln Gln Pro Pro Thr Ser Tyr
225 230 235 240

Pro Pro Gln Thr Gly Ser Tyr Ser Gln Ala Pro Ser Gln Tyr Ser Gln
245 250 255

Gln Ser Ser Ser Tyr Gly Gln Gln Ser Ser Phe Arg Gln Asp His Pro
260 265 270

Ser Ser Met Gly Val Tyr Gly Gln Glu Ser Gly Gly Phe Ser Gly Pro
275 280 285

Gly Glu Asn Arg Ser Met Ser Gly Pro Asp Asn Arg Gly Arg Gly Arg
290 295 300

Gly Gly Phe Asp Arg Gly Gly Met Ser Arg Gly Gly Arg Gly Gly Gly
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Arg Gly Gly Met Gly Ser Ala Gly Glu Arg Gly Gly Phe Asn Lys Pro
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Gly Gly Pro Met Asp Glu Gly Pro Asp Leu Asp Leu Gly Pro Pro Val
340 345 350

Asp Pro Asp Glu Asp Ser Asp Asn Ser Ala Ile Tyr Val Gln Gly Leu
355 360 365

Asn Asp Ser Val Thr Leu Asp Asp Leu Ala Asp Phe Phe Lys Gln Cys
370 375 380

Gly Val Val Lys Met Asn Lys Arg Thr Gly Gln Pro Met Ile His Ile
385 390 395 400

Tyr Leu Asp Lys Glu Thr Gly Lys Pro Lys Gly Asp Ala Thr Val Ser
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Tyr Glu Asp Pro Pro Thr Ala Lys Ala Ala Val Glu Trp Phe Asp Gly
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Lys Asp Phe Gln Gly Ser Lys Leu Lys Val Ser Leu Ala Arg Lys Lys
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Pro Pro Met Asn Ser Met Arg Gly Gly Leu Pro Pro Arg Glu Gly Arg
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Gly Met Pro Pro Pro Leu Arg Gly Gly Pro Gly Gly Pro Gly Gly Pro
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Gly Gly Pro Met Gly Arg Met Gly Gly Arg Gly Gly Asp Arg Gly Gly
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Phe Pro Pro Arg Gly Pro Arg Gly Ser Arg Gly Asn Pro Ser Gly Gly
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Gly Asn Val Gln His Arg Ala Gly Asp Trp Gln Cys Pro Asn Pro Gly
515 520 525

Cys Gly Asn Gln Asn Phe Ala Trp Arg Thr Glu Cys Asn Gln Cys Lys
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Ala Pro Lys Pro Glu Gly Phe Leu Pro Pro Pro Phe Pro Pro Pro Gly
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Gly Asp Arg Gly Arg Gly Gly Pro Gly Gly Met Arg Gly Gly Arg Gly
565 570 575

Gly Leu Met Asp Arg Gly Gly Pro Gly Gly Met Phe Arg Gly Gly Arg
580 585 590

Gly Gly Asp Arg Gly Gly Phe Arg Gly Gly Arg Gly Met Asp Arg Gly
595 600 605

Gly Phe Gly Gly Gly Arg Arg Gly Gly Pro Gly Gly Pro Pro Gly Pro
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Leu Met Glu Gln Met Gly Gly Arg Arg Gly Gly Arg Gly Gly Pro Gly
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Lys Met Asp Lys Gly Glu His Arg Gln Glu Arg Arg Asp Arg Pro Tyr
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